

**Amendments to the Specification:**

Page 2, before line 1, the heading "BACKGROUND OF THE INVENTION" insert the following title and paragraph:

**-- PRIORITY CLAIM**

This is a U.S. national stage of application No. PCT/DE2003/002537, filed on 29 July 2003. Priority is claimed on the following application: Country: Germany, Application No.: 102 34 533.3, Filed: 30 July 2002. --

Please replace the paragraph beginning on page 2, line 3, with the following rewritten paragraph:

-- ~~With~~ For the therapy of solid tumors, ~~in surgery~~ those treatments which preserve the organ are being used during surgery ~~asserting themselves more and more~~. In these cases, the therapeutic application of highly intensive ultrasound (US) represents a very promising alternative form of therapy [15, S.1104]. By way of the extracorporal application of highly intensive, focused US (HIFU = High Intensive Focused Ultrasound), one may also thermally destroy tumors situated deep in the body, in a non-invasive manner. Thus the application of HIFU is suitable for a multitude of possible tumor diseases, such as for the treatment of tumors of the breast, the prostate, the kidney, the bladder and the liver [8]. The advantage of therapy with ultrasound in comparison to convention tumor treatment above all lies in the manner of acting which is gentle to the patient and the high acceptance by the patients as a result of this. --

Please replace the paragraph beginning on page 5, line 26, with the following rewritten paragraph:

-- ~~The aim of this~~ An object of the present invention lies in a direct improvement of the localization of the heating with the targeted use of non-linear US propagation effects. By way of this, on the one hand the balancing act on metering (dosing) is drastically alleviated even with deeply lying tumors so that a practical treatment is possible even without expensive online monitoring. On the other hand by way of an improved localization one may also achieve a significantly lower thermal loading of the tissue located in front with the simultaneous necrotization of the tumor, and thus the pause time between the individual necrosis spots may be significantly reduced. This finally should lead to an optimization of the USTT which is rendered noticeable in the practical handling of the therapy and well as contributing to the further care of the patient. --

Please replace the paragraph beginning on page 5, line 37, with the following rewritten paragraph:

-- ~~The A method achieving this object is specified in claim 1. The dependent claims relate to further advantageous method steps.~~ achieved by a method for producing a local temperature increase within a body of material using focused sound signals in a target region, wherein the target region comprises a volume situated proximate to the focus of the focused sound signals, said method including the steps of generating a sound signal in the target region by radiating the sound signal from a sound emitter in response to a pressure-time signal such that a pressure-time course of the sound signals in the target region is not sinusoidal and such

that a magnitude of the pressure amplitude of the sound signal in the target region is larger than the expansion amplitude of the sound signal in the target region, wherein the pressure-time signal is not a single sinusoidal pressure-time signal, and adapting the pressure-time signal such that the pressure-time course of the sound signals in the target region is adapted to a specific utilization of the non-linear propagation and attenuation properties of the material in the target region such that an increase in the temperature in the target region produced by the adapted pressure-time signal is greater than a temperature increase produced by a sinusoidal pressure-time signal having the same power. --